

551.506 (265.2)

NORTH PACIFIC OCEAN

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During March pressure increased over that of February in the central Aleutian region and decreased in the Gulf of Alaska, where the Aleutian cyclone was central this month, average minimum pressure 29.59 inches, at Kodiak. During the first two decades of the month the disturbance was strongly developed in the gulf, especially from the 5th to the 10th, when it extended farthest southward between the Hawaiian Islands and the American mainland, and was at its greatest depth in northern waters, lowest pressures at the island stations being about 28.80 inches on the 9th and 10th. After the 20th the cyclone began to disintegrate and the decreasing remnant to retreat northward until, at the end of the month, it no longer affected North Pacific weather.

The California-Pacific anticyclone on the average covered an unusually large area for March in middle and lower latitudes, pressures being generally above normal throughout the whole region so dominated.

Barometric data for several island and mainland coast stations in west longitudes are given in the following table:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, at indicated hours, North Pacific Ocean, and adjacent waters, March, 1929

Stations	Average pressure	Departure from normal	High-est	Date	Low-est	Date
	Inches	Inch	Inches		Inches	
Point Barrow ¹	30.01		30.78	4th	29.16	30th.
Dutch Harbor ^{1 2}	29.76	+0.03	30.54	31st	28.76	9th.
St. Paul ^{1 2}	29.80	+0.05	30.44	31st	28.80	9th.
Kodiak ^{1 2}	29.59	-0.16	30.16	22d ⁶	28.84	10th.
Midway Island ¹	30.16	+0.08	30.46	4th	29.84	17th.
Honolulu ⁴	30.04	0.00	30.13	13th	29.91	20th.
Juneau ⁴	29.74	-0.20	30.27	30th	29.14	11th.
Tatoosh Island ^{4 5}	30.03	+0.05	30.32	1st	29.40	9th.
San Francisco ^{4 5}	30.08	+0.03	30.41	26th	29.68	10th.
San Diego ^{4 5}	30.04	+0.02	30.25	25th	29.78	22d.

¹ P. m. observations only.

² For 30 days.

³ For 29 days.

⁴ A. m. and p. m. observations.

⁵ Corrected to 24-hour mean.

⁶ And on 29th.

Fewer stormy days occurred on the North Pacific during March than in any other month since September, 1928. These were principally confined to the first three weeks, the only gales of later date thus far reported by seamen being two of moderate force on the 23d and 25th east of Japan. The principal storm region of the month lay west of the one hundred and eightieth meridian and north of the thirtieth parallel, but strong gales occurred immediately south and southeast of the Aleutian Islands from the 5th to the 10th, and the wind attained hurricane

force on the 7th near 50° N., 160° W. Most of the heavy weather in this locality resulted from the steepness of the gradients on the western side of the Aleutian cyclone center, the gales largely increasing in force with rising pressure. Farther westward toward the Japanese coast the rough weather principally resulted from several rather intense cyclones that traveled eastward from Siberia, accompanied by frequent severe snow squalls. From these sources storm to hurricane velocities were encountered east of the Kuril Islands on the 6th, and near 43° N., 160° to 170° E., on the 12th and 13th. On the 20th and 21st the British steamer *Dalblair*, just east of the Kurils, ran into a deep storm, accompanied by whole gales and snows. Under stress of the bad weather the vessel hove to for more than 24 hours, head to the abnormally high westerly seas. Along the upper steamer routes between Japan and longitude 170° E. about 20 to 25 per cent of the days had gales.

From the 20th to the 22d a cyclone of near tropical nature occurred to the westward of the Hawaiian Islands, with pressure observed as low as 29.18 inches, read on board the Japanese steamer *Siberia Maru*, on the 21st, in 26° 38' N., 169° 10' W. Gales of force 8 to 9, the highest reported, were experienced between latitudes 20° and 30° N., longitudes 165° to 175° W., on the 21st and 22d, in connection with this storm, which seems to have come in from the southward, although it did not progress greatly during the three days it was under observation. It filled in east of Midway Island, but at no time, despite its great central depth, did it more than slightly affect the barometer at that station or at Honolulu.

No gales were reported by vessels in American coast waters, except on the 5th, when a norther of force 8 was experienced in the Gulf of Tehuantepec and on the 25th and 27th when the Weather Bureau station at Tatoosh Island, Wash., recorded gales of force 9 on the 25th and 27th.

The weather at Honolulu during March was abnormally dry and warm, with less wind than usual for the month. The prevailing direction was from the east, and the maximum velocity was at the rate of 25 miles an hour from the northeast on the 4th.

Fog was less frequent than in February, and was reported on one day only in east longitudes. About 10 to 15 per cent of the days had fog over the region between 35° and 50° N., 145° W. and the American coast, where it was general from the 18th to 20th, and about the same percentage was encountered to 170° west longitude by vessels on northern routes. Fog was reported on three days at St. Paul in the Bering Sea; on six days off the coast of southern California and the upper part of the adjoining peninsula, and on two days near 7°-8° N., 85°-88° W. at some distance from the Panama coast.